

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claim 1 (currently amended): A pharmaceutical composition that potentiates immunogenicity of low immunogenic antigens, comprising:

(A) one or more low immunogenic antigens selected from the group consisting of peptides, polypeptides, proteins and their corresponding nucleic acid sequences; and

(B) an immunogenic potentiating effective amount of a vaccine carrier consisting of very small size proteoliposomes (VSSPs), wherein the VSSPs are derived from the Outer Membrane Protein Complex (OMPC) of *Neisseria meningitidis* wherein gangliosides have been incorporated into the OMPC,

wherein the pharmaceutical composition stimulates both humoral and cellular responses against the antigen.

Claim 2 (canceled).

Claim 3 (currently amended): The composition of claim 2 ~~1~~, wherein the low immunogenic antigens or their extra-cellular domains are growth factor receptors.

Claim 4 (previously presented): The composition of claim 3, wherein the extra-cellular domains of the growth factors receptors may or may not contain the trans-membrane region.

Claim 5 (previously presented): The composition of claims 3, wherein the growth factor receptors are HER-1, HER-2, PDGR-R or any variation containing the extra-cellular domain, with or without the trans-membrane region.

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Claim 6 (previously presented): The composition of claim 1, wherein the *Neisseria meningitidis* is either a wild type or a genetically modified strain.

Claim 7 (previously presented): The composition of claim 1, wherein the VSSPs are obtained by hydrophobically incorporating the gangliosides into the OMPC.

Claim 8 (currently amended): The composition of claim 7, wherein the gangliosides are GM1, GM3, their N-acetylated variations or their N-glycolylated variations.

Claim 9 (previously presented): The composition of claim 27, wherein the adjuvant is an oily adjuvant, or a natural or recombinant polypeptide.

Claim 10 (previously presented): The composition of claim 9, wherein the oily adjuvant is the Incomplete Freund's Adjuvant.

Claim 11 (previously presented): The composition of claim 10, wherein the Incomplete Freund's Adjuvant is Montanide ISA 51.

Claim 12 (withdrawn): The composition of claim 9, wherein the polypeptide adjuvant is a cytokine.

Claim 13 (withdrawn): The composition of claim 12, wherein the cytokine is the Granulocyte-Macrophage Colony Stimulating Factor.

Claims 14-20 (canceled).

Claim 21 (withdrawn): A method of treating cancer in a patient in need of such treatment, said method administering to said patient an anticancer effective amount of a composition of claim 1.

Claim 22 (withdrawn): The method of claim 21, wherein the cancer is prostate, colon, lung, breast, ovary, head-neck, vulva, bladder or brain cancer or glioma.

Claim 23 (withdrawn): A method of treating viral or bacterial infections in a patient in need of such treatment, said method comprising administering to said patient an anti-infection effective amount of a composition of claim 1.

Claim 24 (withdrawn): A method of treating an auto-immune disease in a patient in need of such treatment, said method comprising administering to said patient an anti auto immune disease effective amount of a composition of claim 1.

Claim 25 (withdrawn): A method of treating a non-transmissible chronic disease in a patient in need of such treatment, said method comprising administering to said patient an anti non-transmissible chronic disease effective amount of a composition of claim 1.

Claim 26 (withdrawn): A method of treating AIDS in a patient in need of such treatment, said method comprising administering to said patient an anti-AIDS effective amount of a composition of claim 1.

Claim 27 (previously presented): The composition of claim 1, wherein the pharmaceutical composition further comprises one or more adjuvants.

Claim 28 (currently amended): The pharmaceutical composition of claim 8, wherein the gangliosides are N-acetylated GM3 ~~or its N-glycolated variations~~.

Claim 29 (new): The composition of claim 5, wherein the growth factor receptor is HER-1.